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JAP20 Rec'd GPO 15 MAR 2006

U.S. PATENT APPLICATION

IN THE NAME OF

Jean-Marc YERLY

Filed: March 15, 2006

LIFTING MACHINE

**ENGLISH TRANSLATION OF CLAIM 1 AS AMENDED IN THE
COURSE OF INTERNATIONAL PRELIMINARY EXAMINATION**

Attorney Docket No. YERJ-3

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Claims

1. A machine for lifting and handling loads with an orientable articulated placing jib, comprising a mast with a rotating pivot, an articulated jib (10) comprising a jib foot (19), articulated at its first end on the top of the mast by means of a horizontal rotation shaft (27), a jib head member (18) articulated for rotation by means of a horizontal articulation shaft (32) on the second end of the jib foot, a jib holding assembly comprising at least one stanchion (7), a jib holding line (11) and a moving counterweight (100) connected to the jib by the said retaining line, characterised in that the counterweight (100) is made to follow a guiding track (1) with a variable slope (α), rigidly secured to the rotating pivot, supporting the said counterweight, arranged opposite the jib, and where the variations in slope (α) are chosen so that the counterweight exerts a set of variable forces on the said jib and on the structure of the said machine, contributing to balancing the machine during movements of deployment/retraction of the jib in articulated working mode.

2. A lifting machine according to claim 1, characterised in that the guiding track (1) has, in its portion (A) closest to the mast, a slope (α_A) less than the slope (α_B) in at least a portion (B) further away from the mast.

3. A lifting machine according to one of claims 1 or 2, characterised in that the guiding track (1) has a curvilinear profile.

4. A lifting machine according to one of claims 1 or 2, characterised in that the guiding track (1) has a sigmoidal profile.